

CLAIMS

1. A biosensor, comprising: an insulating base plate, an electrode system that is provided on said base plate and has at least a working electrode and a counter electrode, a cover member that is combined with said base plate to define a sample solution supply pathway for leading a sample solution from a sample supply unit to said electrode system, a reaction reagent system including at least an oxidation-reduction enzyme and an electron mediator, and a filter disposed between said electrode system and said sample supply unit in said sample solution supply pathway, said biosensor having a space that encircles surface of said filter in an area from one end of said filter close to said sample supply unit to the other end of said filter close to said electrode system.

2. A biosensor in accordance with claim 1, wherein said cover member is disposed above said base plate, and said sample solution supply pathway starts from said sample supply unit provided on said base plate and is formed along said cover member and said base plate.

3. A biosensor in accordance with claim 1, wherein said sample supply unit is located on a side of said electrode system.

4. A biosensor in accordance with claim 3, wherein said space has a width of 0.5 mm to 5.0 mm.

5. A biosensor in accordance with claim 4, wherein said space has a width of 1.0 mm to 3.0 mm.

6. A biosensor in accordance with claim 1, wherein said sample solution supply pathway is disposed in a direction of gravity from said sample supply unit provided on said cover member.

7. A biosensor in accordance with claim 1, wherein said sample supply unit is located above said electrode system.

8. A biosensor in accordance with claim 6 or 7, wherein width of said space is not less than 100 μm and smaller than thickness of said filter.

9. A biosensor in accordance with claim 5 or 8, wherein said filter is a porous body having spaces connecting with one another in a three-dimensional manner, and said porous body moves blood from said sample supply unit toward said sample solution supply pathway by capillarity and functions to filter hemocytes based on a difference between flow resistances of plasma and the hemocytes.

10. A biosensor in accordance with claim 9, wherein the oxidation-reduction enzyme is cholesterol oxidase.

11. A biosensor in accordance with claim 10, wherein said reaction reagent system includes an enzyme having an ability of hydrolyzing cholesterol ester.

12. A biosensor in accordance with claim 11, wherein the enzyme having the ability of hydrolyzing cholesterol ester is cholesterol esterase.

13. A biosensor in accordance with claim 11 or 12, wherein said reaction reagent system includes a surface active agent.

14. A biosensor in accordance with claim 13, wherein part or all of said cover member and said insulating base plate are transparent.

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